43. Triacanthus weberi, sp. nov.

By B. L. Chaudhuri.

(With Plate XXXII.)

D. V, 22-23; P. 13-14; A. 18-19; C. 13-14.

Height of body slightly greater than the length of head and both contained about 3 times, the distance of cloacal opening from the root of caudal contained $2\frac{1}{2}$ times, and the length of caudal peduncle 4 times in the total length excluding caudal fin. Length of snout is contained $1\frac{1}{3}$ to $1\frac{1}{2}$ times in the length of head.

Eyes more elliptical than circular, major axis of the ellipse almost coinciding with the direction of the length of the fish, and is about $1\frac{1}{2}$ times of the breadth of the eye. In the young, however, the eye is more round. Length of eye is contained 3—$3\frac{1}{2}$ times in the length of head, 2 times in the length of snout and one time in intra-orbital space which consists of two lateral convexities with a shallow fossa in the middle. The distance between the upper edge of the eye and the base of first dorsal spine is almost equal to the length of eye, and the post-orbital part of the head is very much shorter than the length of eye, the former length being contained $2\frac{1}{2}$ times in the latter.

Fins.—The first dorsal spine is twice as long as the second ray of the spinous dorsal and is slightly longer than the ventral spine but shorter than the length of head. The ventral spine is contained nearly $1\frac{1}{2}$ times and first dorsal spine about $1\frac{1}{4}$ times in the length of head. Length of base of anal fin is contained $1\frac{1}{2}$ times in length of base of the soft dorsal fin. The pelvis between the ventral spines is moderately broad and posteriorly terminates tapering to a point.

Shape.—Dorsal profile of the head shows two concavities which are separated by the slight convexity in front of the eye. The concavity above the eye is slight; sub-orbital concavity is in the superior side of the snout and is more prominent than in any other species of this genus; this concavity is still greater in the young. The ventral profile of the head shows a convexity anterior to ventral spine which ends in a shallow concavity in front which again merges gradually in the ventral profile of the prolonged portion of the snout. The convexity in the ventral profile of the head just described gives a distin-

guishing shape to the species and makes it appear as it were possessed of a double chin. The upper edge of the occipital crest is always in the same straight line with the snout.

Teeth.—Eight incisors in each jaw, the lower jaw being slightly prominent and prolonged.

Colour.—Upper part of the body glaucous grey with deeper coloured margin and some deeper blotches interspersed in the upper part of the body, lower part being silvery white; there is a blurred blackish spot in front and around the base of the first dorsal spine; the portion of the membrane between the first dorsal and the rest of the rays of the spinous dorsal is immaculate, but the portion of the membrane that is above the level of the second ray of the spinous dorsal and is attached to the upper half of the first dorsal spine is intensely black. The upper half of first dorsal spine itself is also blackish. From below the eyes to almost end of the snout (that is, excluding upper lip and premaxillary portion), the front of the snout with its bevelled edges to the extent of one-fourth of the length of eye is coloured blackish, which suddenly loses itself in the silvery white colour of the buccal area which is similarly coloured as the lower part of the body. Soft dorsal, pectoral, anal, and caudal fins, ventral spines and lips are all dull white. There is no black spot in front of ventral spine as in Tr. biaculeatus (Bloch).

The principal points in which the new species differs from the rest of the known species belonging to the genus may be more conveniently stated in a tabular form as follows :—

In Tr. brevirostris, Tr. indicus, and Tr. nieuhofi—the snout is straight.	In the new species—the snout is concave.
In Tr. strigilifer—the second ray of spinous dorsal is more than half as long as the first. In Tr. blochi and Tr. biaculeatus and all the rest—the second ray is more than half as long as the first.	In the new species—the second ray of spinous dorsal is normally half as long as the first dorsal spine.
Length of head in total length excluding caudal— In Tr. blochi, $3\frac{1}{2}$—$3\frac{4}{5}$ times. In Tr. biaculeatus, $3\frac{1}{2}$ times. In Tr. brevirostris, $3\frac{1}{2}$—$3\frac{3}{4}$ times. In Tr. indicus, $3\frac{1}{4}$—$3\frac{1}{2}$ times. In Tr. nieuhofi, $3\frac{1}{2}$—$3\frac{3}{5}$ times.	In the new species—length of head three times in total length excluding caudal.

Height of body in the total length excluding caudal— In Tr. biaculeatus, $2\frac{4}{5}$ times. In Tr. oxycephalus, $2\frac{1}{3}$—$2\frac{1}{2}$ times. In Tr. brevirostris, $2\frac{1}{2}$—$2\frac{3}{4}$ times. In Tr. indicus, $2\frac{1}{3}$—$2\frac{2}{3}$ times. In Tr. nieuhofi, $2\frac{1}{3}$ times.	In the new species—height of body in total length excluding caudal is three times.
Length of caudal peduncle in the total length— In Tr. strigilifer, $4\frac{1}{2}$—5 times. In Tr. blochi, $4\frac{1}{2}$—$5\frac{1}{2}$ times. In Tr. biaculeatus, $4\frac{1}{2}$—5 times. In Tr. oxycephalus, $6\frac{1}{2}$—7 times.	In the new species—length of caudal peduncle in the total length is four times.
Length of eye in length of head— In Tr. biaculeatus, $3\frac{1}{2}$—4 times. In Tr. oxycephalus, 3—4 times. In Tr. brevirostris, $3\frac{1}{2}$—5 times. In Tr. indicus, $3\frac{1}{4}$—$4\frac{1}{4}$ times.	In the new species—length of eye in the length of head, 3—$3\frac{1}{2}$ times.
Intra-orbital space— In Tr. strigilifer, concave without distinct median ridge. In Tr. biaculeatus, concave with median ridge scarcely distinct. In Tr. oxycephalus, flat. In Tr. brevirostris, with distinct ridge with a groove on each side.	In the new species—the intra-orbital space consists of two lateral convexities with a shallow fossa or depression in the middle of the space.
The occipital crest— In Tr. blochi—upper edge of occipital crest forms an angle of about 160 with that of snout. In Tr. biaculeatus—upper margin of occipital crest forms an angle of 170 with that of the snout. In Tr. oxycephalus — upper edge of occipital crest is convex.	In the new species—the upper edge of the occipital crest is almost in the same straight line as that of the snout.

In Tr. oxycephalus, Tr. strigilifer, Tr. blochi, and Tr. biaculeatus—the first dorsal spine is *longer* than the head; and in Tr. indicus the first dorsal spine is as long as the head.	In the new species—the first dorsal spine is shorter than the length of head.
In Tr. biaculeatus — distance from posterior margin of eye to base of first dorsal spine, $1\frac{2}{5}$—$1\frac{3}{5}$ times as long as eye length.	In the new species—distance from upper posterior margin of eye to base of first dorsal spine is equal to eye length.
In Tr. brevirostris — length of post-orbital part of head equal to or greater than eye diameter.	In the new species—length of post-orbital part of head is contained $2\frac{1}{2}$ times in the eye length.
In Tr. strigilifer, Tr. blochi and Tr. oxycephalus — the membrane of spinous dorsal is immaculate; in Tr. biaculeatus, the membrane between first two rays of spinous dorsal is blackish; in Tr. brevirostris, Tr. indicus and in Tr. nueihofi, the entire membrane of spinous dorsal blackish.	In the new species—the portion of the membrane of spinous dorsal which is within the rays of the spinous dorsal and lower half of the first dorsal spine is immaculate but the portion which is above the level of the second dorsal ray and only attached to the upper half of the first dorsal spine is coloured intensely black.

There were altogether 11 specimens collected from the Bay of Bengal by the steam trawler "Golden Crown." One from the mouth of the River Hugli, 4 in the Arakan coast, and 6 off Gopalpur in the Madras coast during 1908-9. Ten of these have been used as types for this description and they are in the collection of the Indian Museum. Their total length including the caudal fin and their numbers in the register of the Museum are given below: F. $\frac{4072}{1}$ = 15 C.M., F. $\frac{4078}{1}$ = 14·6 C.M., F. $\frac{3507}{1}$ = 14·3 C.M., F. $\frac{3511}{1}$ = 13·9 C.M., F. $\frac{4080}{1}$ = 13·8 C.M., F. $\frac{4058}{1}$ = 13·2 C.M., F. $\frac{4079}{1}$ = 13·2 C.M., F. $\frac{4081}{71}$ = 12·5 and F. $\frac{4082}{1}$ = 10·2 C.M.

The remaining specimen was submitted to Professor Max Weber for examination, and we are very much indebted to him

for his kindly taking the trouble of comparing that specimen with authentic specimens of Bleeker as well as with the original drawing of Bloch's Triacanthus biaculeatus. The observations and remarks made by Professor Max Weber in his reply have been very helpful in drawing up this description.